

# Choosing A Horn

Walter A. Lawson

Thirty years ago in this country, horn players needed to play only the standard F-B $\flat$  double horn in order to earn a living. Pieces that called for very high, sustained playing were rarely performed and players were able to manage with their regular equipment. Seasons were shorter then, the musicians were physically fresher and missed notes were occasionally forgiven. Conductors stayed at home with their orchestras instead of guest conducting extensively and being exposed to the occasional star horn player who can negotiate extremely high parts with surety and ease. As orchestra seasons lengthened and conductors, critics, and the public became more demanding of accuracy, horn players were forced to work harder physically and were under more pressure to play the high parts without missing notes.

There were three solutions to these problems:

1. Hire more players
2. Change or modify existing equipment
3. Use different equipment

Because of longer seasons and increased numbers of services, players pressured orchestra managements to increase the number of members in the horn section. Instead of 4 players and one assistant 1st, horn sections in major orchestras began using an associate 1st player who played part of the concerts for the 1st horn leaving the assistant to spell other members of the section. Some orchestras in Europe had used six or more players for some time. Many of the large orchestras now have a staff of six horn players and hire extras when needed. This permits occasional rest for everyone, improving performances.

Until the last decade about the only thing a horn player could do to make the equipment perform differently was to change mouthpieces. This was done to make high notes easier and to change the quality of sound. Many players now have their instruments modified in other ways. The sound and dynamic range can be altered by changing the bell; the intonation and response can be altered by changing the mouthpipe; and tubing can be cut or lengthened to change the basic key of the instrument.

Many horn players now own more than one instrument so the proper one can be selected for the part. If

the music to be played is in the upper register, a horn with a shorter tube length with fewer harmonics will improve accuracy. However, tone and carrying power are often sacrificed.

Most beginning students use the single F horn because the sound of this particular instrument has long been considered the traditional sound of the horn and many teachers want to instill this concept in their students. The F horn's long tube length gives the instrument a high resistance with many close harmonics in the high register. Therefore the instrument requires precise lip control and intense mental concentration, the foundation for good musicianship. By the time the player reaches high school or college he is ready for the double horn. This instrument opens up many possibilities for a faster and more accurate technique because of its easier high register and many alternate fingerings.

Lighter instruments are also available: the compensating double F-B $\flat$  in which the valve slides of the F horn are short extensions of the B $\flat$  slides, and the single B $\flat$  horn whose light weight and easy response in the upper register make things easier for the high horn player.

The B $\flat$  and higher horns are most popular with recording artists, pit and show musicians, college instructors, and chamber music players. Recording artists are not so much concerned with sound and volume, as with accuracy and the ability to play very high parts. Pit musicians need to be able to play continuously for long periods of time and chamber music players need an instrument that makes technical passages easier.

As a result of the requirements of today's horn players, manufacturers are offering instruments in a variety of pitches, bores, and alloys. As a general rule when the basic pitch of an instrument is raised by making it shorter, the high register is more accurate due to the wider intervals between harmonics but the low register sound is less acceptable and carrying power is usually reduced.

The following modern horns are available to the player whose choice is dictated by his job requirements:

1. *Single F horn.* Still mostly used by beginning students, these instruments are made with emphasis on strength and durability rather than on playing quality. Usually this horn has three valves and sometimes an extra E $\flat$  slide which should be discarded. A horn player should learn to transpose and can start doing this at an early age. The student also should begin to associate the harmonics with the written notes. An E $\flat$  slide changes the harmonic series to a lower pitch causing considerable confusion.

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*F-Bb double horn.* By far the most-used model. Most all horn parts can be played on these instruments but the extreme high range is precarious. They are available with a wide variety of options, some of which are:

Full double or compensating

Alloys: yellow brass, red brass, nickel silver.

Alloy selected affects the instrument's resistance to corrosion and the timbre of sound. The ease of response and dynamic range depends on the alloy's properties.

Natural, lacquered or plated finish

Change valve reversible F to Bb or Bb to F

Extra stopping valve

Ascending 3rd valve

Small, medium or large bore

Screw bell (detachable). This is easier for travel, also allows sound and dynamic range to be varied by using a bell of different alloy or hardness.

Detachable mouthpiece. Intonation and response can be changed by using a mouthpiece of a different material.

Separate Bb and F tuning slides.

*Single Bb.* This horn is easier to play than the full double because of its lighter weight but it still has an acceptable sound because the bell is usually the same as a full double. Many players select a fast taper mouthpiece that favors the high register. The Bb is typically used by 1st and 3rd symphony players and in chamber music. The available options are nearly the same as for the full double with the following additions: Extra low F crook to be used in place of the stop crook.

Detachable built-in low F extension operated by a 5th valve.

Ascending valve to C (makes open notes of other valves have poor harmonics).

*Bb-Bb or Bb-C full double.* A rare but sometimes useful instrument which makes upward slurs easier to use, as with the ascending valve, the player moves from a long to a shorter horn.

5. *Bb-High F deskant, full double or compensating model.* Usually this model has a stop valve. These instruments are now in wide use both by high and low players because of the demands of playing difficult high parts. They are also acceptable for standard orchestral high parts and are a necessary tool for the recording and chamber music artist. With a wide variety of bores and alloys available, these instruments can be modified to suit many players.

6. *Single high F deskant.* A six-foot horn, small bore, and light in weight. Usually this three-valve horn is used for chamber music and high, light passages. It is not designed for carrying power and has some intonation problems.

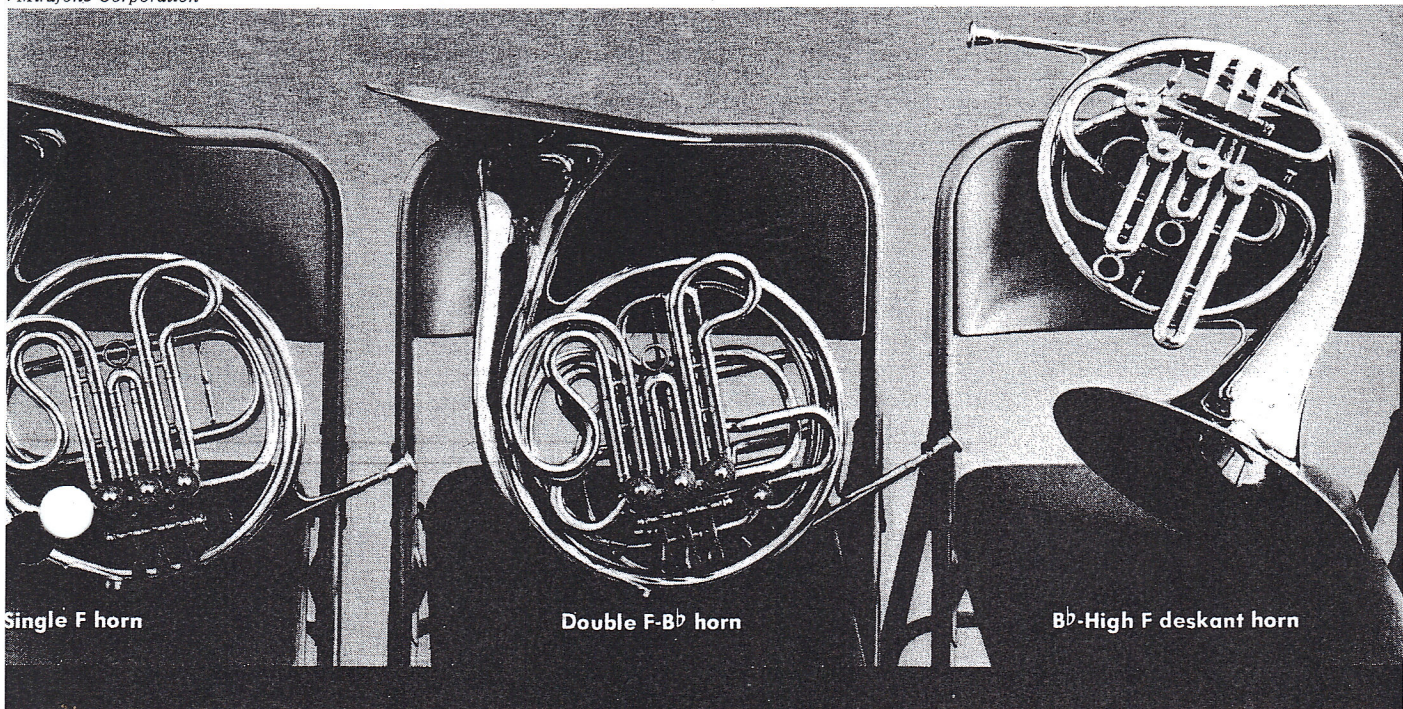
7. *Triple Horn in F-Bb-high F.* An attempt to put all of the qualities desired into one instrument. The mechanical parts are quite complicated. They are very expensive. There are design problems in that the horn plays best in only one register.

8. *Bb-high Bb-full double.* The recent design is, as yet, not widely used but it makes high playing even more secure.

All of these instruments are available from European factories. Most of the horns manufactured in the U.S. are full double, single F, and single Bb, in that order. American manufacturers have been slow to produce the higher pitched instruments but demands from players are being felt and some American deskants are just coming on the market.

The horn player of today has a wide variety of instruments to choose from and can perform many modifications on his own instrument. The demands are greater both physically and musically than they have ever been but instructors and manufacturers seem to be rising to the challenge. Students are better trained due to some fine teachers whose ideas have been widely published. The International Horn Society, through its clinics and journal, has exposed young people to the ideas and playing of the finest artists. And manufacturers throughout the world are exchanging ideas and striving to meet the demands of the players. All the horn player has to do is practice. ■

Mirafone Corporation



Single F horn

Double F-Bb horn

Bb-High F deskant horn